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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,898	07/11/2005	Tomohide Hasegawa	052788	6235

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WASHINGTON, DC 20036

EXAMINER

FLETCHER III, WILLIAM P

ART UNIT	PAPER NUMBER
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1792

MAIL DATE	DELIVERY MODE
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11/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/541,898

Applicant(s)

HASEGAWA ET AL.

Examiner

William P. Fletcher III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/11/05 & 11/29/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 6-10 in the reply filed on September 19, 2007, is acknowledged.
2. Claims 1-5 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on September 19, 2007.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The information disclosure statements (IDS) submitted on July 11, 2005, and November 29, 2006, are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Drawings

5. The drawings were received on July 11, 2005. These drawings are acceptable.

Specification

6. The abstract of the disclosure is objected to because it fails to recite any process steps. Correction is required. See MPEP § 608.01(b).
7. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the

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patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

8. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

9. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: METHOD OF MANUFACTURING REINFORCING FIBER SHEET BY SCREEN PRINTING WITH SCREEN HAVING COARSER THAN AVERAGE MESH SIZE.

10. The use of trademarks has been noted in this application. Trademarks should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. **Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

A. Claim 6 recites the phrase "coarser than standard mesh size" which renders the claim indefinite. It is unclear what standard is being used for comparison. Further, while exemplary mesh sizes are disclosed, no criteria are given whereby one may determine which mesh sizes are included and which are excluded by this limitation. Finally, it appears that mesh size may actually be determined by the type of ink used; the claim neither recites the particular ink or inks utilized nor links the mesh size to the type of ink utilized. Consequently, the metes and bounds of the claim are impossible to determine.

B. Claim 6 recites the phrase “assemblages of numerous fibers” which renders the claim indefinite. The specification provides no guidance or criteria by which one may establish at least the minimum number of fibers considered “numerous” within the context of the invention. Consequently, the metes and bounds of the claim are impossible to determine.

C. Claim 6 recites the phrase “good flexibility” which renders the claim indefinite. The specification provides no guidance or criteria by which one may establish the nature and/or degree of flexibility considered “good” within the context of the invention. Consequently, the metes and bounds of the claim are impossible to determine.

D. Claim 7 recites the phrase “high stretch” which renders the claim indefinite. The specification defines the term: “‘high stretch’ refers herein to excellent elongation without accompanying defects such as fissuring” (page 15, bottom). Defining this term in relation to the presence or absence of a single exemplary defect does not sufficiently define the metes and bounds of the claim, as it is unclear what other defects may be permissible within the context of the invention.

E. In claim 7 the term “the binding and reinforcing layer (14)” lacks proper antecedent basis in the claims.

F. Claim 9 recites the phrase “the standard mesh size” which renders the claim indefinite. It is unclear what standard is being used for comparison. Further, it appears that mesh size may actually be determined by the type of ink used; the

claim neither recites the particular ink or inks utilized nor links the mesh size to the type of ink utilized. Consequently, the metes and bounds of the claim are impossible to determine.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. **Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saint Victor (US 6,211,308 B1) in view of Tugwell (US 4,037,008 A).**

A. Applicant is reminded that the use of reference characters is to be considered as having no effect on the scope of the claims. See MPEP 608.01(m).

B. Claim 6 and 9

i. Saint Victor teaches a process comprising the screen printing of an ink on a textile substrate, followed by drying. The ink, when dried, has a desired flexibility (i.e., "good" within the context of Saint Victor's disclosure) [abstract; 2:7-15; 11:32-55].

ii. It is the Examiner's position that Saint Victor's disclosure of a "textile" inherently satisfies the claimed "cloth layer constructed of vertically and horizontally woven vertical strips and horizontal strips which are assemblages of numerous reinforcing fibers" as evidenced by the ordinary definition of "textile" as "a woven or knit cloth." This definition is attached solely as evidence in support of this inherency.

iii. Further, while Saint Victor does not explicitly recite impregnating with the ink, the art recognizes no distinction between coating and impregnating. See *In re Marra et al.*, 141 USPQ 221.

iv. Finally, Saint Victor does not disclose the use of a coarser than standard mesh size. Nevertheless, Tugwell teaches that the mesh size is a result-effective variable and may be adjusted depending upon the viscosity of the ink utilized as well as the thickness and degree of detail desired [2:13-26]. Consequently, it would have been obvious to one of ordinary skill in the art to optimize the mesh thickness by routine experimentation, absent evidence of criticality. See MPEP 2144.05.

C. Claims 7, 8, and 10

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- i. Saint Victor teaches that the ink may be an acrylic coating material [columns 4-8 and Examples].
- ii. Further, Saint Victor teaches that the ink can – but is not required to – have a colorant (i.e., may be transparent) [10:38-47].
- iii. Finally, it is well-known in the art to carry out multiple applications of a coating material so as to build up a desired thickness on the surface.
- iv. Taken as a whole, one of ordinary skill in the art would have applied the transparent, flexible, acrylic ink, in multiple passes, by screen printing, thereby satisfying the limitations of these claims.
- v. Additionally, Saint Victor places no limitation as to the side of the fabric to which the ink is applied. As such it would have been equally expedient and obvious to apply the ink to the back as to the front of the fabric, based upon the desired end use.

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 6-10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 3, 4, and 6, of copending Application No. 10/532,227. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter of the co-pending claims is fully encompassed by the instant claimed subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

18. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571)

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272-1419. The examiner can normally be reached on Monday through Friday, 0900h-1700h.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor; Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William Phillip Fletcher III/
Primary Examiner

October 30, 2007